



# NORTH MERCER ISLAND/ENATAI Sewer Upgrade Project

## Enatai Neighborhood Community Meeting *Meeting Summary March 2016*

### **Date/Time/Location**

#### **Bellevue Community Meeting**

Wednesday, March 2, 2016

6-8 p.m.

Mercer Slough Environmental Education Center

### **Advance Notification**

King County understands the importance of developing a comprehensive strategy for open house outreach and notifications. Using a variety of tools, the county's project team provided meeting information and notifications to residents and stakeholders in and around the project area.

#### **Postcards**

Postcard mailed to 8,000 residents in the North Mercer Island and Enatai communities.

#### **Mailing List Email**

An invitation and notification email was sent to the project mailing list for the Bellevue community meeting. This list included interested stakeholders and individuals who signed up for notifications via the website or during an outreach event or project briefing.

#### **Personal Letters**

Personal letters were sent via mail on February 26 and hand-delivered to potentially affected property owners on February 29. The letters explained the project's need and purpose, invited the property owners to attend the March 2 meeting, and included a full-page image of the recommended alignment.

### **Meeting Overview and Purpose**

King County's sewer pipe that carries wastewater from North Mercer Island and the southwest portion of Bellevue is ageing and reaching capacity. To limit potential for sewer overflows and keep sewer service in these areas running smoothly, King County will replace the pipe that carries wastewater from the North Mercer Island Pump Station to the Sweyolocken Pump Station in Bellevue. At this time,



*King County Community Relations Planner Monica Van der Vieren discusses the recommended alignment with a Bellevue community meeting participant.*

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the project is in early planning stages and the team has identified a recommended alignment.

The North Mercer Island/Enatai Sewer Upgrade Project team held the meeting in Bellevue's Enatai neighborhood to present the recommended alignment.

### The community meeting provided an opportunity for participants to:

- Learn about the project need and wastewater service in the project area.
- Understand the recommended alternative.
- Ask questions about the project.
- Provide feedback on the recommended alternative.
- Hear how King County Wastewater Treatment Division will work with neighbors throughout the project.

Approximately 10 people attended the meeting. This report provides a summary of what the project team presented to the community, frequently asked community questions, and feedback received from participants.



*Project team members discuss the recommended alternative with Bellevue community meeting participants.*

## Meeting Format

From 6 to 6:30 p.m., participants viewed four display boards explaining how Wastewater Treatment Division works and had the opportunity to talk directly with project staff. The team gave a presentation from 6:30 to 7:30, followed by a facilitated question-and-answer session from 7:30 to 8 p.m.

## Presentation

The presentation covered a project overview, current status and the recommended alternative, design and construction, community input and next steps, followed by a question and discussion session. Facilitator Jamie Strausz-Clark introduced the presenters and explained the format of the presentation, noting that participants should ask clarifying questions at any time and that further questions should be held for the discussion at the end of the presentation.

## Project overview

The current system serving north Mercer Island and the southwest portion of Bellevue was installed in the 1970s and is nearing the end of its lifespan. This project will upgrade the system to serve the community through 2060 or beyond.

## Alternative selection

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## **NORTH MERCER ISLAND/ENATAI Sewer Upgrade Project**

King County's project team includes experts in engineering, construction, community relations, permitting, environmental, and operations, and maintenance. At the beginning of the project, the team developed selection criteria to help select a recommended alternative.

The Bellevue portion of the alignment has not changed much since the September 2015 open houses. This portion of the alignment is limited by the I-90 bridge, Mercer Slough, and direct connections to homes in Enatai.

### **Community input**

Since our first open houses in September 2015, we have been working closely with the community and have heard concerns about coordination with Sound Transit and the impact of multiple construction projects on the community. We are committed to working closely with Sound Transit to reduce impacts wherever possible. We also know that construction projects are impactful; we are working during the design phase to find solutions for community concerns during construction. As our plans progress, we will inform the community about how permitting conditions and Best Management Practices will address the concerns identified by the community.

### **Schedule**

During this early design phase, much of our work will focus on field investigations to inform the final alignment. While we have a recommended alignment (upland), we still need to make refinements and narrow down exactly where the pipeline will be. During final design, we will focus on how to build the system, obtain permits, and develop the construction contract. Our schedule allows about a year for early design, two years for final design, and three years for construction. Construction is scheduled to begin in 2019.

### **Current status and recommended alternative**

#### **Current status**

In the current system, Mercer Island has several pump stations and sewers that feed into King County's North Mercer Pump Station. The North Mercer Pump Station pumps flows uphill to the Mercer Island Community Center and then relies on gravity to carry flows to the Sweyolocken Pump Station in Bellevue. The existing pipe lays along the bottom of Lake Washington near the I-90 bridge then passes near some private docks where there are direct connections to the system. From Sweyolocken, flows are pumped to the East Side Interceptor and then on to King County's South Treatment Plant in Renton. With the upgrade, we need to maintain all of these functions and create a more reliable system.

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## Recommended alternative

There are three segments of the project: the Mercer Island portion, the east Channel Crossing, and the Enatai portion.

- On Mercer Island, one option we considered was an in-water pipeline. However, permitting agencies requested that the team avoid an in-water pipeline unless absolutely necessary, so the current focus is the upland option. We also considered options running next to I-90, but we would not be able to use gravity to convey flows, and to pump flows all the way from Mercer Island to the Sweyolocken Pump Station would have meant significant changes to the pump station.
- Crossing the East Channel, technology and space limited us to an open-cut crossing.
- In Bellevue, we'll use a trenchless, or below-ground, technique to install a pipe from Enatai Beach Park to Sweyolocken. We considered building a parallel pipe to the existing pipe, but permitting restrictions and poor soils in the Mercer Slough made that unfeasible.

In Bellevue, portions of the Enatai Interceptor will stay in service. There are about 25 homes that connect directly to it, and it receives flows from the Bellevue Lake Line. King County relined portions of the Enatai Interceptor in 2002 and 2003. This project will conduct additional relining on the portion of the pipe near the Sweyolocken Pump Station and additional relining as needed to extend the pipe's lifespan.

## Design and construction

### Design

During early design, we will gather information to determine the final pipe alignment. This includes a land survey on public streets and in parks, and some homeowners may be asked for permission to conduct surveys on private property. We will also conduct geotechnical borings and pile support evaluations along Mercer Slough.

### Construction

- East Channel: To construct the in-water crossing through the East Channel, crews will enter the water at the Mercer Island Boat Launch and install the pipe on the north side of the I-90 bridge primarily using barges in Lake Washington. Most of this work will happen during the summer to avoid impacts to fish in the lake. The main steps are to excavate, or dredge, the bottom of the lake; dispose of excavated material at an approved facility; install the pipe; and backfill with two layers of material—one layer that will protect the pipe, and another fish-friendly layer.

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- **Southwest Bellevue:** The underground pipe from Enatai Beach Park to Sweyolocken Pump Station will be constructed using a trenchless, or below ground, technology. One type of trenchless technology is called Horizontal Directional Drilling (HDD). King County has experience with HDD. The county's subcontractor just completed an HDD project for the Bellevue Force Main Project, and the county recently used HDD on the Magnolia CSO Control Project. In this case, the team considered open-cut construction, but it would have been more risky, more expensive, and more impactful to residents. To install the new 30-inch pipe using HDD, crews would first drill a pilot hole, enlarge the hole using a reaming pass, and then pull the pipe through the hole. During pipe pullback the pipe would be fused together and floated in Lake Washington to avoid traffic impacts. There would be temporary impacts to docks in the East Channel during this time. Pipe pullback typically lasts about two-to-three days.
- **Enatai Interceptor Diversion:** A new open cut pipeline will be built from just north of I-90 and across Enatai Beach Park to connect the new pipeline to the existing Enatai Interceptor. Diverting flows from the Enatai Interceptor will keep flows moving quickly through the Enatai Interceptor so that it can continue functioning properly. We understand that Enatai Beach park is popular and we are working with the City of Bellevue and the community to minimize impacts.
- **Sweyolocken Pump Station:** Pump station work will likely entail construction and staging at the Sweyolocken Boat Launch. We expect the boat launch to be closed for about eight months. We will work with the City of Bellevue and the community to minimize impacts related to this work.

King County takes environmental protection and restoration very seriously. Because sewer pipes often use gravity to convey flows, they are generally located in low-lying areas, which tend to be near water bodies. This means King County has a lot of experience working near sensitive shoreline areas. We have been and will continue working with permitting agencies and tribes to protect shoreline areas and plan for appropriate restoration once the project is complete. King County will restore areas to permit conditions.

We'll have more detail to share as we progress design related to odor control at Enatai Beach Park, access to Enatai Beach Park and boat launches, noise, working hours and timing, and working in sensitive shoreline areas.

### **Community input**

King County understands working near homes and recreation centers is impactful, and we will work with you throughout the life of the project.

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King County created an [HDD video](#) during the Magnolia CSO Control Project. View the video for a better understanding of this construction technique.

If there is community interest, King County is committed to a technical session to discuss the technical aspects of the project in-depth. Please contact King County if you are interested in one-on-one or small group meetings.

Your feedback at these meetings and throughout the project helps us to understand your neighborhood.

A few more ways we'll work with you:

- Wastewater education. While we have your attention, you'll also hear from us about things like what not to flush to help keep harmful items out of the sewer system.
- A text alert system for trail users.
- Permitting. We'll let you know about upcoming permits and when you have opportunities to provide input or official comments.
- Whenever we have above-ground structures, we'll have opportunities to work with you on architectural look and feel.
- During construction, we will have a 24/7 hotline.

Monica Vander Vieren will be your main point of contact. She can be reached at 206-477-5502 or [monica.vandervieren@kingcounty.gov](mailto:monica.vandervieren@kingcounty.gov).

### Summary of Questions

The following section summarizes general questions, comments, and discussion from the public meeting. This summary does not document site-specific issues, which King County will address with individual homeowners in one-on-one and small group meetings.

#### Questions and comments focused on the following topics:

**Construction**, including specifics related to:

- Horizontal Directional Drilling
- Specific property impacts
- Work hours and other specifics related to construction
- Parking during construction

**Pipe longevity and function**

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## **NORTH MERCER ISLAND/ENATAI Sewer Upgrade Project**

### **Horizontal Directional Drilling**

**Can you describe the pipeline pullback (for the HDD portion) in greater detail? I'm concerned about boat traffic during pullback.**

There are a lot of steps that need to happen before the pullback. First, crews bore the pilot hole then they enlarge the hole with the reaming pass before the pipe is pulled through the hole. The pipe will either be assembled onsite or offsite and brought in. Ideally the 3,000 feet of pipe would be fused together before beginning, but it's possible to attach several sections during the pullback. During pullback, the pipe will be floating in Lake Washington with boats keeping it in place as we pull it through the hole. Note that there is a safety issue with getting too close to the pipe because crews will be holding it in place and it will be under some pressure, so if it comes loose it can swing out. Once crews start, they must keep going, so the pipeline pullback will be a continuous operation for two-to-three days

### **Property impacts**

**How soon will we know which lots are impacted? Can you tell us which homes you are considering building the pipe underneath?**

By the end of early design we will have a final alignment, but we still have a ways to go. During this stage we are collecting information to finalize the alignment. Once an alignment is determined, King County will reach out to impacted homeowners.

**Do you want to know which homes have sump pumps and/or pools?**

The pipe will be so deep that surface features like that should not be an issue.

### **Work specifics**

**During construction, at what times will there be light or noise impacts? Will odor be an issue?**

Work hours are related to permit conditions that we will determine with the cities. It is likely that there will be seasonal and event restrictions. Permit conditions will cover noise and light. We anticipate that crews will generally work during normal business hours. We will let you know if there are any permits that involve public comment so you can weigh in.

One caveat to work hours is construction to the existing Enatai Interceptor. We will affect direct connections to the system at the south shore of Enatai, so we may need to do some limited nighttime work when flows are lowest.

Odor should not be an issue during construction. The odor control we mentioned will be a permanent fixture at Enatai Beach Park.

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We also want to note that sound can travel in unexpected ways. We will prepare by doing noise studies and research, but we are on call 24/7 during construction so that if there is a problem you can call us.

### **Will in-water dredging and backfilling work be done by barge? What if the contractor wants to use trucks?**

The only way for the contractor to really access the area by the I-90 bridge is by barge, although there could be some trucking on either end of the crossing.

### **Will the material from the drill (HDD) be trucked out or barged out?**

Excavated material, or spoils, from the HDD operation will be hauled out.

### **What will your haul routes be?**

It is likely that the City of Bellevue will require a designated haul route as part of the permit conditions. We have to maintain safety, so if we're doing anything to restrict a road we will have appropriate traffic control.

## **Parking during construction**

### **Where will workers park?**

Construction parking is still to be determined. It's not uncommon to have designated parking off-site with a shuttle to bring workers to the site.

The City of Bellevue has plans for improvements under the I-90 bridge – Enatai Beach Phase II. We will work with them to coordinate as appropriate.

## **Pipe longevity and function**

### **How do you know the pipe will work for 50 years?**

Many of the materials we are considering have been used in a variety of applications for decades; additionally, they are all extensively tested to determine their lifespan.

### **Are there sensors to identify pipe leaks?**

Leak detection is not generally done for sewer pipes because they are under too little pressure. We do a thorough engineering analysis of pressure that the pipe will be exposed to as we select the pipe material.

We also test the pipe once it's in place to make sure there are no leaks. In general, junction points are more susceptible to leaks, and the county monitors those regularly.

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